



## Ako Aotearoa National Project Fund Expression of Interest Form 2009

### Section 1: Funding Stream (please select)

X	Research and Implementation Projects
	Māori Initiative Projects
	Pacific Peoples Projects

### Section 2: Project Title (12 words maximum)

Education for sustainability for every student
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### Section 3: Contact Project Leader Details

Full name (including title if applicable)	Associate Professor Samuel Mann
Organisation	Otago Polytechnic
Organisation type (e.g. university/PTE)	Polytechnic
Organisation Address	Forth Street, Private Bag 1910, Dunedin
Email address	Smann@tekotago.ac.nz
Contact phone number	03 479 6128    021 735 493

### Section 4: Project Team Details

Role (use abbreviations)	Full name (including title if applicable)	Organisation
PL	Associate Professor Samuel Mann	Otago Polytechnic
PL	Professor Kate Kearins	Auckland University of Technology
TM	Dr Carol Boyle	University of Auckland
TM	Dr Kate Hewson	Canterbury University
TM	Dr Pamela Williams	Victoria University of Wellington
TM	Dr Terry Kelly/ Jonathon Hannon	Massey University
TM	Rex Verity	Christchurch Polytechnic Institute of Technology
TM	Ella Lawton	Otago Polytechnic
TM	Dr Logan Muller/Alison Young	Unitec New Zealand
TM	Professor Kerry Shephard	University of Otago

Abbreviations: PL = Project Leader; TM = Team Member; M = Mentor

### Section 5: Priority Area (less than 12 words)

Learner engagement and learner outcomes
Strategic professional development initiatives

**Section 6: Project Summary**

This collaborative project focuses on promoting integrated Education for Sustainability (EfS) in New Zealand universities and polytechnics. The project aims to engage and liaise with all New Zealand universities and polytechnics to improve understanding of where we are at now in relation to EfS, where we want to go in the future and what that future looks like, to identify potential blockages to reaching this vision, and to equip champions with tools and resources to overcome these challenges. This aim is met with four objectives:

- (1) collaborative development of a set of indicators for EfS;
- (2) benchmarking the current state of EfS;
- (3) development/promotion of frameworks for integration of EfS into any education stream within tertiary education institutions; and
- (4) dissemination to equip institutional champions with EfS tools and resources.

**Section 7: Indicative Budget**

Funding sought	Description (please provide detail e.g. number of staffing hours, type of equipment, type of travel)	Amount
Staffing	AUT Academic 213.5 hours @ \$80	\$ 17080
	AUT Research Assistant 420 hours @ \$25	\$ 10500
	OP Academic 158 hours @ \$80	\$ 12640
	OP Research Assistant 300 hours @ \$25	\$ 7500
	Other institutions Academic 130.5 hours @ \$80	\$ 10440
	Other institutions Research Assistant 190 hours @ \$25	\$ 4750
Equipment	NA	
Operational Costs		\$2500
Travel	Five regional workshops, (Objective 1 and 4) Travel to in depth TELs (Objective 2)	\$10000
Overhead	Academic 0.875, Research Assistant 1.0 (note this is average of institutional requirements)	\$57890
GST		\$ 16,662
<b>TOTAL</b>		<b>\$ 149,962</b>

Please expand table as required

**Section 8: Indicative Dissemination Plan**

Audience e.g. research community, practitioners	Dissemination approach e.g. reports, journal articles, presentations
Institutional sustainability champions	Involvement in process of developing indicators at professional development workshops. Building on two previously held one-day workshops held in Wellington in November 2008 and July 2009, two further workshops are planned. The first of these is a proposed workshop at the New Zealand Association of Environmental Educators' Conference in January 2010 (proposal already submitted in August 2009); a second would likely be held in Wellington in March 2010.

	Workshops will be run in the main centres at the conclusion of the project to personally connect with a wider group of institutional champions who are in the process currently of being nominated by the 36 universities and polytechnics (letter already sent to VCs and CEOs in August 2009).
Lecturers	Web-based resource dissemination will be facilitated by institutional sustainability champions, utilising the existing Sustainability in Tertiary Education in New Zealand (STENZ) website.
Researchers	At least one conference paper and presentation and one academic journal article publication (in education and professional areas of interest) will be prepared.
Institutional governance	A report summarising the results of the benchmarking survey and ensuing recommendations will be sent to each participating university and polytechnic. A letter with individual institutional results and a cluster ranking will also be sent.

### Section 9: Project Proposal (2 pages maximum)

Education for sustainability for every student

#### Aim

This project aims to engage and liaise with multiple New Zealand tertiary education institutions (TEIs) within New Zealand to improve understanding of where we are at now in relation to EfS, where we want to go in the future and what that future looks like, to identify potential blockages to reaching this vision, and to equip institutional champions with tools and resources to overcome these challenges. This collaborative project involving sustainability champions from a range of New Zealand TEIs will build much-needed momentum and capacity within and between tertiary institutions in EfS practical application and institutional change.

#### Objectives

This aim is met through four objectives. First, collaborative development of EfS indicators will aim to provide a consensus of attributes required for making a real change. Second, benchmarking of the current state of EfS will provide an understanding what is happening now, focussing on curriculum, leverage and, identification of best practice within particular TEIs. Third, these understandings will facilitate the development of frameworks for integration of EfS into any education stream within all institutions. Fourth, the project will work across the sector to equip institutional champions with tools and resources to overcome these challenges.

#### Evidence-base for the need of the project

Increasingly, institutions are acknowledging the importance of moving beyond business-as-usual and integrating Education for Sustainability (EfS) into their teaching practices and learning outcomes. Although we recognise there is increasing awareness and willingness to incorporate sustainability into the curriculum in a variety of disciplines, often institutions, teaching departments and individuals lack a

framework, processes and tools to provide broad scale integration.

The timing for the project sits at the midpoint in the United Nations Decade for Education for Sustainable Development (2005-2014) (UNDESD). This project will be undertaken primarily by the core group of Sustainability in Tertiary Education New Zealand. STENZ was established in late 2008 in relation to the UNDESD with a vision that “in 2014, all New Zealand tertiary graduates will understand the principles, values, and practices of strong sustainability.” STENZ is made up of individuals representing tertiary institutions within New Zealand, with significant demonstrated capacity and expertise in EfS over many years. There is additional information about STENZ and the above work streams on <http://wikieducator.org/Stenz>

### Project design

Subject to funding and ethical approval, the project will commence in 2010.

**Objective 1 is to collaboratively develop a set of indicators to assess sustainability-related teaching and learning activity in New Zealand universities and polytechnics**

- with a view to reporting results so as to promote improved practice. A preliminary draft set of indicators has been developed in a STENZ workshop in July 2009. These will be further informed by *The Asia Pacific guidelines for developing national ESD indicators for the Asia-Pacific region* published by UNESCO Asia and Pacific Regional Bureau for Education in 2007 and available through the Australian Research Institute in Education for Sustainability ([www.aries.mq.edu.au/pdf/Guideline2.pdf](http://www.aries.mq.edu.au/pdf/Guideline2.pdf)), along with information on its allied projects in the tertiary education sector in Australia. Additional consideration will be given to alignment with relevant aspects of and indicators from the Association for the Advancement of Sustainability in Higher Education's (AASHE) Sustainability Tracking Assessment and Rating System (STARS) for colleges and universities ([www.aashe.org/stars/index.php](http://www.aashe.org/stars/index.php)). Two further workshops planned for January and March 2010 will consider which of the draft list of indicators would contribute most to understandings of the state of EfS in New Zealand. At the conclusion of the workshops, participants will be given a draft report card, containing the agreed indicators and asked to imagine being asked to complete it for their institution, so as to provide an initial pilot of the indicator instrument.

**Objective 2 is to complete the benchmarking exercise.** A national survey of New Zealand universities and polytechnics will be completed in May 2010. In-depth interviews will be conducted in selected TEIs (comprising at least one high, mid and low-end performer from the survey). Results will be reported confidentially to individual institutions, advising them of their position most likely in a cluster rather than a detailed rank order. A more general report will be written as a basis for discussion with key informants and other interested parties. The survey would ideally be repeated prior to the end of the UNDESD with the possibility that results including any improvements or declines in performance across the sector would be made public at that time. Professor Kate Kearins (AUT) will lead work on objectives 1 and 2.

**Objective 3 is to facilitate the development of frameworks for integration of EfS into any education stream within all institutions.** From the best practices identified in the survey, and a further review of the EfS literature internationally, work will occur on the development of web-based tools and resources. These will be shared initially at a STENZ workshop in Wellington in October 2010.

**Objective 4 is to work across the sectors to equip institutional champions with appropriate EfS tools and resources.** Professional development training of institutional sustainability champions using a train-the-trainer model will occur through workshops in main centres, starting November 2010. Participants will be provided with resources including online space such as Wiki Educator for further discussion and refinement of tools and resources, and further cross institutional sharing. These institutional champions will assist in a roll-out of these materials within institutions. Associate Professor Samuel Mann (Otago Polytechnic) will lead work on objectives 3 and 4. Participation of other team members occurs in the workshop, and the Wiki Educator, already set up, and as key advisors throughout.

**Expected benefits for learners, and the potential impact of the project**

The larger goal of this project is that “in 2014, all New Zealand tertiary graduates will understand the principles, values, and practices of strong sustainability.”

EfS can be seen as an umbrella term for building capability for efficiency and effectiveness in dealing with systemic problems of un-sustainability. EfS is a dynamic system of core content, competencies and habits of mind coupled with a pedagogical system that is learner-centred and inquiry-based. This project prompts TEIs to prepare learners as sustainable practitioners, whatever their chosen career.

## Section 10: Contact Project Leader CV

**Dr Samuel Mann** is Associate Professor Information Technology at Otago Polytechnic where he has worked since 1997, including five years as Head of Department. Sam has published over 150 conference and journal papers in the fields of augmented experiences; sustainability; and computer education.

Sam is responsible for the development of Education for Sustainability at Otago Polytechnic where we have a commitment to “every graduate thinking and acting as a sustainable practitioner”. This initiative recently won the ITPNZ Award for Excellence in Education for a Global Role.

Sam is working in computing to develop strategies, practices and resources for computing to contribute positively to a sustainable future. He led the development of the draft statement on Education for Sustainability for the ACM SIG-CSE, which followed up on the success of New Zealand NACCQ policy and agenda on computing education for sustainability.



Sam is convenor of Sustainability in Tertiary Education in New Zealand (STENZ), a cross sector group with the vision that **“In 2014, all NZ tertiary graduates will understand the principles, values, and practices of sustainability”**.

In 2009 Sam is the Beeby Fellow for his work in Education for Sustainability. The Beeby fellowship is a joint initiative between New

Zealand National Commission for UNESCO and the NZ Council of Education Research.

Sam teaches Software Engineering (using a hybrid Agile Development Framework) and manages the capstone industry projects. He and his students work on systems that harness the power of technology to help engage people with information: the goal is to make the computer invisible and to instead focus on promoting engaging experiences. Sam is on the National Advisory Committee on Computing Qualifications. Sam's has recently successfully completed a major research project, SimPa (Digital Strategy, total project \$700K). SimPa involved a collaboration of institutions working with Māori communities to retell their stories in 3D game format – teaching Māori kids programming in the process.

Mann, S., Smith, L., Muller, L. (2008) Computing education for sustainability ACM SIGCSE Bulletin ACM SIGCSE Bulletin 40(4):183-193

Mann, S. Smith, L. G., Shephard, K., Smith, N. Deaker, L. (2009) Benchmarking sustainability values of incoming computing students. 22nd Annual Conference of the National Advisory Committee on Computing Qualifications, Napier, 10-13th July, 43-52.

Shephard K. , Mann S. , Smith N. and Deaker L. Benchmarking the environmental values and attitudes of students in New Zealand's post-compulsory education.

*Environmental Education Research* (In press).

## Section 11: Project Leader CV

### CURRICULUM VITAE Professor Kate Kearins

#### Tertiary Education:

1984 Bachelor of Education *Waikato*  
 1989 Master of Arts (Hons) *Massey*  
 1992 Master of Management Studies *Waikato*  
 1998 Doctor of Philosophy in Management *Waikato*

#### Distinctions/Honours:

2001- Editorial Board Member of eight international journals  
 2006-7 Academy of Management Organizations and the Natural Environment Division Chair, USA  
 2007 Plenary Speaker, International Strategic Management Conference, China  
 2007 Faculty advisor oikos Sustainability PhD Academy, Switzerland  
 2007 Fulbright New Zealand Travel Award, USA  
 2008 Vice Chancellor's Award for Excellence in Postgraduate Research Supervision  
 2009 Judge Prosper.net Scopus Young Scientist Award Business and Sustainable Development, Thailand

#### Academic Employment Record:

1992-2003 Academic posts culminating in Associate Professor of Strategic Management, University of Waikato  
 2003- Professor of Management, Discipline Chair (2004-2007), Acting Director Business Postgraduate Programmes (2008-2009), Auckland University of Technology

#### External Research Grant

2002 Royal Society of New Zealand Marsden Award (\$480 000) New Zealand business and sustainability; Joint Principal Investigator

#### Relevant Guest Editorships

Co-Editor, *Business Strategy and Environment* special issue: Educating for Sustainability, 14 (3), 2005.  
 Co-Editor, *The Electronic Journal of Radical Organisation Theory* special issue: Theoretical Perspectives on Sustainability, 9 (1), 2005.

Total number of refereed: a) journal articles; b) books; c) book chapters; d) refereed conference proceedings; and e) other items.	(a) 38	(b) 0	(c) 14	(d) 81
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#### Sample Relevant Refereed Journal Articles

Collins, E. & Kearins, K. (2007). Exposing students to the risks of stakeholder engagement when teaching sustainability. *Journal of Management Education*, 31 (4), 521-540.  
 Milne, M., Kearins, K. & Walton, S. (2006). Business makes a 'journey' out of 'sustainability': Creating adventures in Wonderland? *Organization*, 13 (6), 801-839.  
 Springett, D. & Kearins, K. (2005). Editorial. Educating for sustainability: An imperative for action. *Business Strategy and the Environment*, 14 (3), 143-145.  
 Kearins, K. & Springett, D. (2003). Educating for sustainability: Developing critical skills. *Journal of Management Education*. 27 (2), 188-204.

**Section 11: Team Member CV**

University of Auckland  
Abridged Standard  
**ACADEMIC CV**



THE UNIVERSITY OF AUCKLAND  
NEW ZEALAND

**NAME:** Carol Boyle  
**CURRENT POSITION:** Senior Lecturer  
**DEPARTMENT:** Civil and Environmental Engineering  
**FACULTY:** Engineering

**EDUCATIONAL QUALIFICATIONS:**

PhD (Civil Engineering), 1995, McMaster University, Hamilton, Ontario.  
MEnvironmental Design (Env. Science), 1990, University of Calgary, Alberta.  
BSc(Hon) (Biology), 1978, Carleton University, Ottawa, Ontario.

**SIGNIFICANT DISTINCTIONS / AWARDS:**

1998, 1999, 2006 Top 20 Teaching Award  
**Invited Lectures:** 12 keynote presentations, 19 invited presentations and seminars.  
**Chair:** 3 conferences, a 4<sup>th</sup> scheduled for Dec. 20010; 12 public forums  
Director, International Centre for Sustainability Engineering and Research, Civil and Environmental Engineering, University of Auckland

**PROFESSIONAL SOCIETIES / SERVICE / OTHER ACTIVITIES:**

Engineering Practice Board, IPENZ, 2006-present  
Member, IPENZ, 1999- present  
Chair, NZ Society for Sustainability Engineering and Science, 2003-present  
Chair, Organising Committee, International Conference on Sustainability Engineering and Science, 2003-present  
Member, Sustainability SubGroup, Practice Board, IPENZ, 2004  
Member, Task Force on Decommission of POPs, UNEP, 2003-2005  
Member, IPENZ President's Task Force on Sustainability, 2003-2004  
Committee Member, Sustainability Aotearoa New Zealand, 2002-present  
Member, Waste Management Institute of New Zealand, 1997-present

**TEACHING:** I am dedicated to teaching excellence and focus on guiding students in critical and logical analysis and good communication. I have an average of 8.6/10 since 2005 from student evaluations and have received the Top 20 Teaching Award three times, the last in 2006. I have successfully supervised 27 Part IV project, 19 Masters projects, 15 completed Masters thesis and am supervising 4 PhD students. Subject Areas Taught: Environmental engineering – sustainability engineering, life cycle and risk analysis, industrial processes, waste management, impact assessment

**RESEARCH SPECIALTIES / CAREER:**

**Summary Statement:** My field of research focuses on the establishment of the science and engineering underlying sustainability and its application to the real world, including the function and interactions of complex, dynamic systems, process thinking, systems limitations, management and risk.

**Research Publications:** 63 refereed publications and 42 conference presentations

**Research Grants / Funding:** Over \$1,650,000 in research funding with \$1,200,000 in preparation



## Section 11: Team Member CV

### Ella Susanne Lawton MSc LLB BSc GCAS

Ph: +64 27 685 0783; [ellal@tekotago.ac.nz](mailto:ellal@tekotago.ac.nz)

#### PROFESSIONAL EXPERIENCE

##### **Sustainable Practice Advisor 2008-ongoing**

##### **Centre for Sustainable Practice, Otago Polytechnic**

*Network hub partnering with local government, business and the wider community to facilitate and support a move towards sustainability.*

##### Current projects:

- Otago Polytechnic Sustainable Practitioner Project: Supporting departments and individuals success in Educating for Sustainability.
- Central Otago STAR Project Advisor: Ministry for Tourism and Central Otago District Council part funding for 3-years to support and develop sustainable tourism in the Central Otago Region
- Programme manager: FRST funded Footing printing project, Central Otago
- Designs and Facilitates: 'Towards Sustainable Practice': Otago Polytechnic an on-line course for middle managers

##### **Researcher 2007-2008**

**Hobsonville Land Company Ltd. Auckland, New Zealand**

##### **Assistant Project Leader, Project 2058 2006-2008**

**Sustainable Future Wellington, New Zealand**

#### QUALIFICATIONS

##### **Postgraduate Certificate in Tertiary Learning and Teaching 2009-2010**

**Otago Polytechnic Dunedin, New Zealand**

##### **Masters, Strategic Leadership towards Sustainability**

**2007-**

**2008 Blekinge Institute of Technology Karlskrona, Sweden**

##### **Bachelors of Law**

##### **Bachelors of Science (Ecology)**

**2000-**

**2005 University of Otago**

**Dunedin, New Zealand**

#### PUBLICATIONS AND COMMUNITY POSITIONS

##### **Natural Science Sub-Committee Member 2009-ongoing**

**United Nations Educational, Scientific and Cultural Organisation New Zealand**

##### **Advisor, Education Officer and International Liaison 2008-ongoing**

**The Natural Step Foundation Aotearoa New Zealand New Zealand**

Lawton, E.S. & McGuinness, W. (2007) "A National Sustainable Development Strategy: How does New Zealand Government Measure Up to International Obligations?" Published June 2007. Report 1 of Project 2058.

Heltrich, N., Lawton, E. & Stack, G. (2008) "A Needs Based Approach to the Urban Design and Planning Process". Blueprints Conference NZSSES Conference promoting Sustainable Infrastructure. New Zealand Society for Sustainability Engineering and Science

**Section 11: Team Member CV**

NAME: Kerry Shephard BSc PhD  
 ADDRESS: Higher Education Development Centre, University of Otago PO Box 56 Dunedin  
 TELEPHONE: 64 (0)3 479 8439 EMAIL: kerry.shephard@otago.ac.nz

**CAREER SUMMARY**

Currently Professor of Higher Education Development in the University of Otago's Higher Education Development Centre (Since 1<sup>st</sup> February 2006, including three years as Director). My expertise in this role is based on an academic career as researcher and lecturer in biology and extensive engagement in research and development of innovations in learning and teaching.

Previously (2000-2006) Learning Technologies Coordinator, Centre for Learning and Teaching, University of Southampton, UK. and before that (1996-2000) Senior Lecturer and Head of Biology - School of Science, Technology and Health, University of Southampton New College (previously LSU College) and (1982-1996) Lecturer/Senior Lecturer in Life Sciences at the UK's University of Buckingham.

I have experience of: coordination and strategic development of higher education policy and strategy for the use of ICT in teaching and learning; academic staff development workshop programmes; development and teaching of programmes designed to change professional practice; development and support of processes designed to stimulate research into academic practice. I have been involved in large UK research and development projects, a project in New Zealand to develop a national professional development framework and projects in the area of education for sustainability.

**RESEARCH INTERESTS**

Staff and educational development, including eLearning, assessment, evaluation and affective learning, as well as broad interests in education for sustainable development and 'the public understanding of science'.

**A SELECTION OF RECENT PUBLICATIONS**

Shephard, K. (2009) e is for exploration: assessing hard to measure learning outcomes *British Journal of Educational Technology* 40 (2) 386–398.

Shephard K. (2008) Higher education for sustainability: seeking affective learning outcomes. *International Journal for Sustainability in Higher Education* 9 (1) 87-98.

Wong D Shephard K and Philips P (2008) The cathedral and the bazaar of e-repository development: encouraging community engagement with moving pictures and sound *ALT-J* 16 (1) 31-40.

Wong D, Clarke S, Lodge N and Shephard K. (2007) Demand-led e-learning and the elusive total solution. *British Journal of Educational Technology* 38:1, 116–132.

Shephard K, Wong, D and Philips P (2007) Why deliver learning resources online *British Journal of Educational Technology* 38 (1) 116–132.

Bracher M, Collier R, Ottewill R and Shephard K (2005) Accessing and engaging with video streams for educational purposes: experiences, issues and concerns. *ALT-J* 13 (2) 139-150.

Shephard K, Warburton B, Maier P, and Warren A (2005) Development and evaluation of computer-assisted assessment in higher education in relation to BS7988, *Assessment and Evaluation in Higher Education* 31 (5) 583-596.

**Section 11: Team Member CV****Dr Logan Muller**

Senior Academic Unitec NZ

lmuller@unitec.ac.nz

**Qualifications**

PhD Sustainable Practice 2005

Masters International Business 2001

Dip Teaching 1986

Science Water technology 1984

Engineering Civil 1986

**Editorships**

The Journal of Information, Communication and Ethics in Society (JICES) Assoc editor

ACM SIGCAS Special Publication on Computing and Sustainability Guest editor

International Journal of Information Systems and Social Change (IJISSC).

International Journal of Information Systems and Social Change (IJISSC)

**Recent projects/work.**

Computing for Empowerment (Brasil),

Sustainable Development (South Amazon), ICT for empowerment (City slum Belo Horizonte Brasil),

ICT for Poverty Alleviation (Peru),

Project design for ICT for Poverty alleviation and sustainable agriculture/marketing (Bolivia/Ecuador). Organisational restructure 'Change agent' for Global Food Security organization.

**Past work experience includes.**

Managing Director of a Capital Development and Retraining Organisation

General Manager Internet Co of NZ (restructure)

Area Manager for international companies involved in energy reduction and efficiency (One Arab, one US based)

Special Invitations

**Keynote Speaker invitations/international conferences:**

EDUCOM 2008 Thailand

Technology for Innovation Conference. Thailand 2007

Australasian Computer Science Conference. Melbourne 2006

ICTs for Sustainable Business. Sao Paulo Brazil. 2007, 2006

Innovation and Technology in Computer Science. Italy 2006 .

APEC Telecommunications conference. Auckland 2006

National Advisory Committee of Computing Qualifications ( NACCQ) NZ 2003, 2005.

**Section 11: Team Member CV****Dr Pamela Williams**

Pam currently works as an Education for Sustainability Advisor (part-time, since 2002), based at Karori campus, Victoria University of Wellington and working with Wellington Secondary Colleges teachers and student groups. During the last twelve years Pam has been involved in writing resources, strategic planning, policy overview and review in both national and regional organisations with initiatives in sustainability education and co-authoring educational research in sustainability learning initiatives.

Prior to 1997 Pam was a secondary teacher, teaching mainly science, biology and social development, in state co-educational secondary colleges.

**Educational Qualifications**

PhD., 2008. Victoria University of Wellington; Thesis title: “University Leadership for Sustainability – an active dendritic framework for enabling connection and collaboration”.  
 M.Ed. (Dist), 1992. University of Canterbury  
 Dip. Ed., 1979. Massey University  
 B.Sc. Hons., 1969. University of Canterbury  
 Dip. Tch., 1967. Christchurch College of Education.

**Appointments.**

Pam is a current member of the Royal Society of New Zealand Teacher Fellowship Review panel, is an active member of the Victoria University’s Environmental Champion Committee and is working with the Victoria University Teaching and Development Centre to promote learning for sustainability in university programmes.

Recently held positions include membership on a number of National Advisory groups (Ministry for Environment, Royal Society) for Environmental Education, Sustainability Communication, National Waterways, EMAP projects,

Pam is a founding member of the N.Z. Association of Environmental Education and was National President from 1997 – 2003, is an active member of the IUCN-CEC (Communication & Education Commission), a founding Board member of the NZ Enviroschools Foundation and a member of the NZ Committee for the UN Decade of Education for Sustainable Development. Pam belongs to a number of sustainability and environmental organizations and was until recently an active Board member of The Natural Step Aotearoa (N.Z.) with a particular focus on educational aspects of the organization.

**Section 11: Team Member CV**

**Section 12: Contact Project Leader Declaration**

I declare that to the best of my knowledge the information I have provided in this expression of interest is correct and I meet the eligibility criteria stated in the *Ako Aotearoa National Project Fund Guidelines 2009*.

I declare that the Project Team Members listed in this application have committed to partaking in this project, and their associated organisations endorse their inclusion.

Date	20 <sup>th</sup> August 2009
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Name	Assoc Prof Samuel Mann
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Signature	
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**Section 13: Organisational Endorsement of Contact Project Leader (to be completed by the host CEO/Tumuaki of delegated manager)**

I support this expression of interest for the Ako Aotearoa National Project Fund. I verify that the applicant meets the eligibility criteria

Date	20 <sup>th</sup> August 2009
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Name	Dr Robin Day. Deputy Chief Executive
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Signature	
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**Expressions of interest must be received by Kirsty Weir, Ako Aotearoa Research Manager no later than Friday 5pm 21<sup>st</sup> August 2009.**

**Expressions of interest can be submitted as, either:**

- One PDF file, emailed to [K.Weir@massey.ac.nz](mailto:K.Weir@massey.ac.nz), or
- one printed copy, posted to Kirsty Weir, Ako Aotearoa, Private Bag 756, Wellington, New Zealand

**Late or incomplete applications will not be considered**